Dr. Indrajeet Kumar

Designation: - Assistant Professor

Experience: - 06 months

Education Qualification: - Ph.D

Specialization: - Environmental Engineering

E-Mail id: - indrajeet.kumar@gperi.ac.in

Research

1. Kumar, I., Quaff, A.R. 2019. Comparative study on the effectiveness of natural coagulant aids and commercial coagulant: removal of arsenic from water. **International Journal of Environmental Science and Technology**, 16: 5989-5994, DOI:10.1007/s13762-018-1980-8.

2. Kumar, I., Bhattacharya, J. 2019. Assessment of the role of silver nanoparticles in reducing poultry mortality, risk and economic benefits. **Applied Nanoscience**, 9: 1293-1307, DOI:10.1007/s13204-018- 00942-x.

3. Kumar, I., Bhattacharya, J., Das, B.K., Lahiri, P. 2020. Growth, serum biochemical, and histopathological responses of broilers administered with silver nanoparticles as a drinking water disinfectant. **3 Biotech**, 10: 94, DOI:10.1007/s13205-020-2101-1.

4. Kumar, I., Ranjan, P., Quaff, A.R. 2020. Cost-effective synthesis and characterization of CuO NPs as a nanosize adsorbent for As (III) remediation in synthetic arsenic-contaminated water. **Journal of Environmental Health Science and Engineering**, 18: 1131-1140, DOI:10.1007/s40201-020-00532-6.

5. Kumar, I., Bhattacharya, J., Das, B.K. 2020. Dispersion, availability, and antimicrobial activity of silver nanoparticles during application to drinking water of the poultry. **Environmental Nanotechnology, Monitoring, and Management**, 14: 100368, DOI: 10.1016/j.enmm.2020.100368.

CONFERENCES:

1. Kumar, I., Bhattacharya, J. Reducing poultry mortality by using modified silver nanoparticle formulation against enteric bacteria. 50th Annual Convention of Indian Water Works Association (**IWWA**) held on 19-21 February 2018 at Kala Academy Panaji, Goa, India.

2. Kumar, I., Bhattacharya, J. A novel green hydrothermal route of prepration of silver nanoparticles (AgNPs), their characterization and economic potential. International Symposium on “Recent Advances in Chemistry and Material Sciences (2019)”Organised by the **Indian Chemical Society** and Chemical Sciences Division, Saha Institute of Nuclear Physics, Kolkata on August 02 & 03, 2019.

3. Kumar, I., Bhattacharya, J. Evaluation of risk and the beneficial effects of synthesized nano silver-based disinfectants on poultry mortality and health. 16th International Conference and Environmental Science and Technology **CEST 2019**, Rhodes, Greece.

Professional contribution: - (Give details regarding program attended and organized, name of program, and date along with name of organizer)

TRAINING & WORKSHOPS:

1. Faculty Development Programme on **Numerical Techniques in Water Resources and Environmental Engineering (NTWREE).** Organized by Department of Civil Engineering NIT Patna (Under **TEQIP**) from 16-20th Dec, 2013.

2. Author Workshop on **How to Write and Publish Scientific Articles and Manuscripts**. Jointly organized by IIT Kharagpur and Springer Nature on 27th Feb, 2018.

Achievements: - (Any type related to the field of engineering, membership of any body)

ACADEMIC ACHEIVEMENT

Fellowship from Ministry of Human Resource and Development (**MHRD**), Government of India. For qualifying Graduate Aptitude Test in Engineering (**GATE**) in Civil Engineering, 2013 & 2014.

TECHNICAL SKILLS AND EXPERTISE:

- **Water and Wastewater Testing:** Physicochemical and Bacteriological Process.
- **Synthesis of Nanomaterials:** Physical and Chemical Method.
- **Microbial Culture:** Aerobic Pathogens (Total Coliform and E. coli) and Anti-microbial assay.
- **Material Characterization:** UV-visible Spectroscopy, Dynamic Light Scattering (DLS), Atomic Absorption Spectroscopy (AAS), Flame Photometer, Electron Microscopy (SEM and TEM).
- **Computer skill:** Origin Pro, SPSS Statistics, AutoCAD.